

STATE OF SOUTH DAKOTA CLASS SPECIFICATION

Class Title: Communications Network Analyst

Class Code: 40372

A. Purpose:

Designs and manages the comprehensive operations of a shared communications system including the technical aspects, network services planning and engineering, software maintenance, contract administration, and liaison with regulation sources to ensure efficient operations of the communications network systems.

B. Distinguishing Feature:

The Communications Network Analyst oversees all aspects of a shared telecommunications system. The incumbent's functions are characterized by quick and expeditious problem resolutions, the ability to take actions that solve the short-term problem while keeping the longer term in mind, and the statewide impact of major projects.

The Communications Network Specialist maintains the on-going operations and participates in the planning and installation of voice, data, and video communications systems.

The Communications Network Administrator administers statewide communications systems by overseeing design and installation, preparing budgetary and planning documents, supervising technical support staff, and providing technical maintenance support.

C. Functions:

(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)

1. Designs and implements communications systems to ensure agency goals are met and maintained.
 - a. Evaluates and selects a variety of communications equipment and software.
 - b. Writes requests for proposals (RFP's) and technical specifications for statewide system services, equipment, and purchases.
 - c. Supervises the installation and implementation of expansions, upgrades, and changes.
 - d. Researches communications technologies to ensure rapid and error free movement of voice, data, and video on the communications network.
 - e. Documents the design and maintenance of communications systems.
 - f. Analyzes vendor, contractor, or cost/price proposals and invoices, and negotiates technical and non-technical issues with vendors and contractors.
2. Provides planning support to ensure continued enhancements of the communications system.
 - a. Evaluates, selects, and implements new transmission protocols for voice, video, and data networks.
 - b. Compiles traffic reports and analyzes traffic loads.
 - c. Maintains liaison with regulations sources.
 - d. Monitors legislation.
 - e. Assists in the preparation of budgetary proposals.
 - f. Evaluates, selects, and implements system protocols.
3. Manages and monitors network upgrade installations and maintenance to ensure

continued access to state facilities.

- a. Meets with vendors for product analysis.
- b. Performs on-site station reviews.
- c. Consults with clients by answering technical, operational, or policy questions.
- d. Arranges maintenance services, troubleshoots problems and oversees outside contractors.
- e. Coordinates activities with vendors, clients, and contractors.

4. Implements and maintains communications hardware and software to support continued changes in the communications environment.

- a. Installs upgrades to existing software.
- b. Diagnoses and resolves network and system software problems.
- c. Meets with clients to determine the need for new/upgraded software and hardware.
- d. Researches, evaluates, and tests hardware and software for compatibility.

5. Performs other work as assigned.

D. Reporting Relationships:

Typically provides direction, training, and technical assistance to Communications Network Technicians or Communications Network Specialists.

E. Challenges:

To manage the infra-structure of a shared communications system and implement major communications projects. This involves staying current on the changes in technologies as they related to voice, data, and video communications. Also challenging is migrating existing multiple networks and systems into a shared network and system that serves multiple clients and encompasses networks that serve multiple systems.

Typical problems resolved include determining the best solution to a client's problem, negotiating technical and non-technical issues with vendors and contractors, installing new networks and systems, and explaining services to clients.

F. Decision-making Authority:

Decisions made include developing priorities and procedures for installations; determining the need and feasibility of enhancements and new products; determining the product type, specification, and feature needed when writing a request for proposal; establishing network designs and protocols; developing details of network configurations; and determining the need for system down time.

Decisions referred include final approval of changes or conflicts in network policies; large budgetary expenditures; overall concept and system designs; and priority of major system installations.

G. Contact with Others:

The incumbent has frequent contact with outside vendors regarding contracts and product selection; and clients to provide problem resolution, technical assistance, and project status information.

H. Working Conditions:

Typical office environment.

I. Knowledge, Skills, and Abilities:

Knowledge of:

- telecommunications;
- theories, design, and operating principles of communications systems;
- communications network traffic engineering;
- communications network and transmission designs;
- operating protocols and connectivity;
- communications systems software and hardware; and
- satellite technology.

Ability to:

- interpret schematics, flow charts, and blueprints;
- identify potential source of system problems; and
- communicate effectively.